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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,443	01/12/2006	Stewart Anderson	4662-128	7492

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
HOLT, ANDRIAE M	

ART UNIT	PAPER NUMBER
1616	

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07/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,443	ANDERSON ET AL.	
	Examiner	Art Unit	
	Andriae M. Holt	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to applicant's amendments filed March 25, 2009. Claims 1-16 are pending in the application. Claims 1-16 will presently be examined to the extent they read on the elected subject matter of record.

Status of the Claims

Rejections not reiterated from the previous Office Action are hereby withdrawn. The following rejections are either reiterated or newly applied. They constitute the complete set of rejections presently being applied to the instant application.

The rejection of claims 1 and 3-8 under 35 U.S.C. 102(a) as being anticipated by Miyota et al. (WO 03/086099) **is maintained.**

The rejection of claims 1-3, 6, 8-10, 12, and 14-16 under 35 U.S.C. 102(b) as being anticipated by Ogata et al. (JP06181695) **is maintained**.

The rejection of claims 9-10 and 15 under 35 U.S.C. 102(b) as being anticipated by Alexis Publication (1999) **is maintained**.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Miyota et al. (WO 03/086099)

Miyota et al. disclose a stabilized vitamin C exhibiting high vitamin C titer which is reduced only to a minimum extent during the course of production and storage (page 3, paragraph 1). Miyota et al. disclose a fish-farming solid feed containing a stabilized vitamin C that contains at least one kind of oil selected from vegetable oil and animal oil (page 4, claims 1-5). Miyota et al. disclose the stabilized vitamin C is a salt of L-ascorbate 2-phosphate (ascorbyl (poly) phosphate, instant invention). Miyota et al. further disclose the preferred vitamin C is selected from at least one salt consisting of magnesium, calcium, sodium, and potassium salts of L-ascorbate 2-phosphate (page 4, claim 10), including a sodium/calcium mixed salt of L-ascorbate 2 phosphate (page 7, paragraph 1). Miyota et al. disclose that it is preferable in view of stability that stabilized vitamin C is applied as an oily slurry which is a dispersion in at least one oil selected from vegetable oils and animal oils. Miyota et al. further disclose that when an oil slurry is used, stabilize vitamin C has reduced chance of contacting with water and its decomposition due to hydrolysis can be minimized (page 8, paragraph 4-page 9, paragraph 1).

Miyota et al. disclose the average particle size of a stabilized vitamin C particle is in the range of 5μm to 300μm (page 6, paragraph 17). Miyota et al. further disclose stabilized vitamin C is retained at a high ratio in the fish-farming solid feed, at least 60% by mass (page 12, paragraph 3) (5% to about 40% ascorbic acid equivalent, instant invention). Miyota et al. disclose the fish-farming solid feed contains at least 10% by

weight more preferably 10% to 40% by weight of the vegetable and/or animal oil (page 11, paragraph 2) (amount of lipid, 10%-60%, instant invention). Miyota et al. disclose in magnesium salt of L-ascorbate 2-phosphate was dispersed in fish oil to prepare an oily APM suspension. Miyota et al. further disclose the feed pellets were immersed in the oily APM suspension (page 16, paragraph 1) (adsorbent, instant invention).

Miyota et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 1-3, 6, 8-10, 12, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogata et al. (JP06181695).

Ogata et al. disclose that there when using L-ascorbic acid 2-phosphoric ester there is high L-ascorbic acid activity in almost all living things including metal and bacteria of certain kind, such as the enzyme and acid that exists in biogenic substances, such as a germ of the wheat which may be added by feed, and fish meal in wheat bran and a feed raw material and iron. Ogata et al. further disclose that this promotes disassembly of ascorbic acid-2-phosphoric acid and that the concentration of L-ascorbic acid 2-phosphoric acid falls (page 2, paragraph 9).

Ogata et al. disclose a method that enables one to keep stable L-ascorbic acid-2-phosphoric acid in feed, thus decreasing the disassembly of ascorbic acid 2-phosphoric acid (page 2, paragraph 10). Ogata et al. disclose the L-ascorbic acid 2-phosphoric acid is dissolved in hardening plant and animal oil fat with a melting point of not less than 40° C (method of stabilizing ascorbyl (poly) phosphate against

degradation by phosphatases, instant invention) (page 2, Means of Solving the Problem).

Ogata et al. disclose in example 4, L-ascorbic acid 2-sodium phosphate (sodium calcium ascorbyl 2-polyphosphate, instant invention), dibasic calcium phosphate, calcium carbonate, calcium lactate, potassium metaphosphate, and beef tallow extreme hydrogenated oil(lipid, instant invention) were fed into the agitation granulation machine. Ogata et al. further disclose the melting heating granulation was performed and the granule of 20-42 meshes was obtained (page 4, paragraph 25). Applicant uses the term "comprising" in the claims, therefore, lending to the inclusion of other products.

Ogata et al. disclose examples of salts of L-ascorbic acid 2-phosphoric acid include L-ascorbic acid 2 monophosphate (trisodium ascorbyl 2-monophosphate, instant invention) and L-ascorbic acid-2-polyphosphoric acid including salts of sodium and calcium (page 2, paragraph 11). Ogata et al. disclose examples of the oil include palm oil and hardening oleum rapae (page 3, paragraph 12). Ogata et al. further disclose the amount of oil and fat used is 10% by weight or more of the composition (amount of lipid 10 wt %, instant invention). Ogata et al. disclose in the description of the prior art that L-ascorbic acid is added to feed for land animals such as swine and cows (animal feed for ruminants, instant invention).

Ogata et al. meet all of the limitations of the claims and the claims are thereby anticipated.

Claims 9-10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Alexis Publication (1999).

The Alexis Publication discloses a comparative study of stabilized phosphate esters of ascorbic acid, including mono (AmP) and polyphosphates (ApP) (Introduction). The Alexis Publication teaches that phosphate esters of ascorbic acid (AA), in the form of mono-(AmP) and polyphosphates (ApP) have been found to be more stable than the acid form. The Alexis Publication discloses the common practical formula was prepared as described in Table 1 (page 448, 2.1). The Alexis Publication discloses the premix used contained all essential vitamins and minerals except for the ascorbic acid. The Alexis Publication discloses diet 2 included ascorbyl-2-monophosphate; diet 3 included ROVIMIX Stay C 25 (mainly polyphosphate); and diet 4 included ROVIMIX Stay C35 (mainly monophosphate). The Alexis Publication discloses all the dry components of the diet were mixed in a Hobart mixer and water and oil were added to obtain a soft paste (trisodium L-ascorbyl-2-monophosphate and sodium calcium L-ascorbyl-2-polyphosphate and oil, instant invention). The Alexis Publication discloses the paste was passed through a mincer and dried at 35º C in a forced air circulator. The Alexis Publication discloses that pellets were crumbled to an appropriate size, screened and fed to the fish (animal feed and premixes, instant invention).

The Alexis Publication meets all of the limitations of the claims and the claims are thereby anticipated.

Response to Arguments

Applicant's arguments filed March 25, 2009 have been fully considered but they are not persuasive. Applicant argues that a systematic defect of the current Official Action is that the claims are not properly examined and the claims 1-8 are directed to a method of stabilizing an ascorbyl (poly) phosphate against degradation by phosphatases. In response to applicant's arguments, claims 1-8 are drawn to **a method of stabilizing an ascorbyl (poly) phosphate**. The method includes coating the ascorbyl (poly) phosphate with a lipid. Each of the prior art references cited, Miyota et al., Ogata et al. and the Alexis Publication, recite the steps of coating an ascorbyl (poly) phosphate with a lipid to stabilize the ascorbyl (poly) phosphate. The fact that applicant has recognized another advantage, a slightly different purpose, which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. The end result is a stabilized ascorbyl (poly) phosphate achieved by coating the stabilized ascorbyl (poly) phosphate with a lipid.

Applicant has also amended the claims to recite the transitional phrase, "consisting of". Miyota et al. discloses on page 16, that magnesium salt of L-ascorbate 2-phosphate was dispersed in fish oil to prepare an oily APM suspension. This mixture contains the ascorbyl (poly) phosphate coated with a lipid only, "consisting of". The other ingredients added are a pre-mix of feed, which applicant cites on page 2, lines 34-35, "the coated ascorbyl phosphate composition is conventionally mixed into a premix containing, in addition, vitamin, minerals and other additives.

Ogata et al. disclose the L-ascorbic acid 2-phosphoric acid is dissolved in hardening plant and animal oil fat with a melting point of not less than 40° C, which meets the "consisting of" language. Ogata et al. disclose in example 4, L-ascorbic acid 2-sodium phosphate (sodium calcium ascorbyl 2-polyphosphate, instant invention), dibasic calcium phosphate, calcium carbonate, calcium lactate, potassium metaphosphate, and beef tallow extreme hydrogenated oil(lipid, instant invention) were fed into the agitation granulation machine. The additional additives, dibasic calcium phosphate, calcium carbonate, and calcium lactate are all adsorbents that can be added to the formulations, per the instant claims.

New Rejections Necessitated by Amendment filed March 25, 2009

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogata et al. (JP06181695).

Ogata et al. disclose that there when using L-ascorbic acid 2-phosphoric ester there is high L-ascorbic acid activity in almost all living things including metal and bacteria of certain kind, such as the enzyme and acid that exists in biogenic

substances, such as a germ of the wheat which may be added by feed, and fish meal in wheat bran and a feed raw material and iron. Ogata et al. further disclose that this promotes disassembly of ascorbic acid-2-phosphoric acid and that the concentration of L-ascorbic acid 2-phosphoric acid falls (page 2, paragraph 9).

Ogata et al. disclose a method that enables one to keep stable L-ascorbic acid-2-phosphoric acid in feed, thus decreasing the disassembly of ascorbic acid 2-phosphoric acid (page 2, paragraph 10). Ogata et al. disclose the L-ascorbic acid 2-phosphoric acid is dissolved in hardening plant and animal oil fat with a melting point of not less than 40° C (method of stabilizing ascorbyl (poly) phosphate against degradation by phosphatases, instant invention) (page 2, Means of Solving the Problem).

Ogata et al. disclose in example 4, L-ascorbic acid 2-sodium phosphate (sodium calcium ascorbyl 2-polyphosphate, instant invention), dibasic calcium phosphate calcium carbonate (adsorbant, 0.5-5 wt. %)), calcium lactate, potassium metaphosphate, and beef tallow extreme hydrogenated oil (lipid, instant invention) were fed into the agitation granulation machine. Ogata et al. further disclose the melting heating granulation was performed and the granule of 20-42 meshes was obtained (page 4, paragraph 25). Ogata et al. disclose examples of salts of L-ascorbic acid 2-phosphoric acid include L-ascorbic acid 2 monophosphate (trisodium ascorbyl 2-monophosphate, instant invention) and L-ascorbic acid-2-polyphosphoric acid including salts of sodium and calcium (page 2, paragraph 11). Ogata et al. disclose examples of the oil include palm oil and hardening oleum rapae (page 3, paragraph 12). Ogata et al.

further disclose the amount of oil and fat used is 10% by weight or more of the composition (amount of lipid 10 wt %, instant invention). Ogata et al. disclose in the description of the prior art that L-ascorbic acid is added to feed for land animals such as swine and cows (animal feed for ruminants, instant invention).

Ogata et al. meet all of the limitations of the claims and the claims are thereby anticipated.

None of the claims are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andriae M. Holt whose telephone number is (571)272-9328. The examiner can normally be reached on 7:00 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richter Johann can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andriae M. Holt
Patent Examiner
Art Unit 1616

/John Pak/
Primary Examiner, Art Unit 1616